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NOTICE OF ALLOWANCE AND FEE(S) DUE

66811 7590 04/03/2009

BANNER & WITCOFF, LTD.
and ATTORNEYS FOR CLIENT NO. 006943
10 SOUTH WACKER DR.
SUITE 3000
CHICAGO, IL 60606

EXAMINER

CHAWLA, JYOTI

ART UNIT

PAPER NUMBER

1794

DATE MAILED: 04/03/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/628,420

07/29/2003

Thomas Lee

006943.00310

6264

TITLE OF INVENTION: METHOD TO IMPROVE THE STABILITY OF LEMON/LIME FLAVORED BEVERAGES

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	07/06/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE
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INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

66811 7590 04/03/2009

**BANNER & WITCOFF, LTD.
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10 SOUTH WACKER DR.
SUITE 3000
CHICAGO, IL 60606**

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/628,420 07/29/2003 Thomas Lee 006943.00310 6264

TITLE OF INVENTION: METHOD TO IMPROVE THE STABILITY OF LEMON/LIME FLAVORED BEVERAGES

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nonprovisional NO \$1510 \$300 \$0 \$1810 07/06/2009

EXAMINER	ART UNIT	CLASS-SUBCLASS
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CHAWLA, JYOTI 1794 426-590000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____
- 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies _____

4b. Payment of Fee(s); (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____

Date _____

Typed or printed name _____

Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 440 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 440 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability

Application No.

10/628,420

Applicant(s)

LEE ET AL.

Examiner

Art Unit

JYOTI CHAWLA

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to response dated 2/25/09.
2. ☒ The allowed claim(s) is/are 23-26 and 28-40.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: ____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date ____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date ____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date ____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date ____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other ____.

/Jennifer McNeil/
SPE 1794

EXAMINER'S AMENDMENT & REASONS FOR ALLOWANCE

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 25, 2009 has been entered. Claims 23 and 24 have been amended.

The current Examiner's amendment cancels claim 27 and amends claims 23 and 24. Claims 23-26 and 28-40 are allowed in the current application.

Examiner's Amendment

Examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with applicant's representative Adrian L. Pishko on March 25, 2009.

Amendment to the claims:

Please cancel claim 27.

Please amend claims 23, 24 and 28 to read as follows:

Claim 28:

Claim 28 in line 1, replace "27" with -----24-----

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Claim 23: A method comprising:

(a) including in a lemon/lime flavored beverage an acidulant system consisting of (i) citric acid in an amount from about 0.18 to about 0.24 % by weight of the finished lemon/lime flavored beverage and (ii) adipic acid having a smaller dissociation constant than citric acid; and

(b) increasing the pH of the lemon/lime flavored beverage by up to about 0.7 pH units until the beverage has a pH between about 3.2 and about 3.8 at the time of manufacture by including in the lemon/lime flavored beverage a buffer salt system consisting of a citrate salt and a phosphate salt, wherein the ratio by weight of said adipic acid : said citric acid is 1 : 15 to 1 : 3, and wherein for at least four weeks following manufacture the beverage is more tart and has a stronger lemon/lime taste than a beverage having the same amount of lemon flavoring and a pH of at least about 3.0 and without said ratio of acids.

Claim 24: A method comprising:

(a) including in a lemon/lime flavored beverage an acidulant system consisting of (i) a combination of phosphoric acid and citric acid and citric acid in an amount from about 0.18 to about 0.24 % by weight of the finished lemon/lime flavored beverage and (ii) adipic acid having a smaller dissociation constant than both phosphoric acid and citric acid; and

(b) increasing the pH of the lemon/lime flavored beverage by up to about 0.7 pH units until the beverage has a pH between about 3.2 and about 3.8 at the time manufacture by including in the lemon/lime flavored beverage a buffer salt system consisting of a citrate salt and a phosphate salt, wherein the ratio by weight of said adipic acid : said phosphoric acid : said citric acid is 3.0-4.0 : 1.4-2.0 : 1.0, and wherein for up to seven months following manufacture the beverage is more tart and has a stronger lemon/lime flavor and taste than a beverage having the same amount of lemon flavoring and a pH of at least about 2.7 [3.0] and without said ratio of acids.

Reasons for Allowance

The following is an examiner's statement of reasons for allowance:

Methods of making lemon-lime flavored beverages with citric, and phosphoric acids with adipic acid in the pH in the recited range have been known in the art (Braun US 4830862). Braun also teaches of addition of salts including citrate and phosphate salts (Column 5, lines 53-68) to the beverage compositions as instantly claimed (Column 8, line 58 and Column 9, lines 7-10, and Column 14, lines 10-15 and Column 6, lines 1-6). Braun is silent about the amount of adipic acid in a beverage and the relative proportions of the citric, adipic and phosphoric acids and also the proportion of citrate and phosphate salts and the relationship of the relative amount of acids to the strength and stability of lemon-lime taste stability of the beverages as claimed. The other closest prior art of record Nakel et al (US 4551342), teaches a formula wherein citric, phosphoric and malic acids and calculations to come up with stable beverage formulations. However, the calculations of Nakel were based on experimental results specific to Nakel. The equation disclosed by Nakel for determination of amount of acid component in the beverages (Column 8, Nakel) indicates that if the calculations fall within 9.6 and 12.1 the acid level of the beverage is acceptable as relied upon in the rejection. However, the applicants' have shown that there is no disclosure in Nakel that the malic acid can be substituted for adipic acid (See applicant's remarks, 2/25/09, pages 7-8). Further the applicants' show by way of calculation that applicant's claimed beverages are acceptable and storage stable, but have values between 1.68 and 2.91 (Remarks, 2/25/09 page 9), which do not follow the calculation trend taught by Nakel. Thus, the applicants' have shown that there are innumerable possible combinations of types and amounts of edible acids and buffers possible and the examples of combinations in the cited art does not render every other combination obvious. Thus, claimed weight ratios of specific acids and buffer salts that have strong lemon-lime flavor at least four weeks after manufacture are not taught by combined teachings of

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Braun, VanNess, Lee and Nakel. Therefore, a method of a lemon/lime flavored beverage with an acidulant system consisting of citric acid in an amount from about 0.18 to about 0.24 % by weight of the finished lemon/lime flavored beverage and adipic acid with or without phosphoric acid, pH between 3.2 to 3.8, wherein the ratio by weight of said adipic acid : said citric acid is 1 : 15 to 1 : 3, and where the beverage with for at least four weeks following manufacture the beverage is more tart and has a stronger lemon/lime taste than a beverage having the same amount of lemon flavoring and a pH of at least about 3.0 and without said ratio of acids as recited in claim 23 , as recited in the instantly claimed invention is free of the prior art. Similarly a lemon-lime beverage with acidulant with citric, phosphoric and adipic acid with above pH and flavor attributes and the ratio by weight of adipic acid : said phosphoric acid : said citric acid is 3.0-4.0 : 1.4-2.0 : 1.0, and wherein for up to seven months following manufacture the beverage is more tart and has a stronger lemon/lime flavor and taste than a beverage having the same amount of lemon and cola flavoring and a pH of at least about 2.7 and without said ratio of acids in the instantly claimed invention (Claim 24) was not obvious over prior art and is free of the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JYOTI CHAWLA whose telephone number is (571)272-8212. The examiner can normally be reached on 9:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil can be reached on (571) 272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

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published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JC/
Examiner
Art Unit 1794

/JENNIFER MCNEIL/

Supervisory Patent Examiner, Art Unit 1794